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EXAMINER
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WEST, JEFFREY R

ART UNIT	PAPER NUMBER
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2857

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/913,992

Applicant(s)

PELZ ET AL.

Examiner

Jeffrey R. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Response to Appeal Brief***

2. In response to the Appeal Brief filed May 22, 2006, PROSECUTION IS HEREBY REOPENED. A new grounds of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

***Claim Objections***

3. Claims 13-15, 19, and 20 are objected to because of the following informalities:

In claim 13, lines 2-3, to avoid problems of antecedent basis, "the other ones of the plurality of components" should be ---the other components---.

In claim 14, line 3, to avoid problems of antecedent basis, "the plurality of components" should be ---the other components---.

In claim 15, line 2, to avoid problems of antecedent basis, "the plurality of components" should be ---the other components---.

In claim 19, line 3, "the bus and that" should be ---the bus that---.

In claim 19, line 4, to avoid problems of antecedent basis, "include a service element that" should be something similar to ---including a service element, among other components, that---.

In claim 20, line 2, to avoid problems of antecedent basis, "the plurality of components" should be ---the other components---.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 11-23 are rejected under 35 U.S.C. 112, first paragraph, as failing

to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 11-19 are rejected as failing to comply with the enablement requirement because the specification fails to provide adequate disclosure to one having ordinary skill in the art as to what constitutes each of the "arrangements" claimed.

First, the specification does not describe any specific "arrangements" but instead only describes several components that carry out particular functions. Therefore, it is unclear to one having ordinary skill in the art as to whether the "arrangements" claimed refer to an order or combination of components or refer to nothing more than a single component carrying out a function.

Second, the specification does not adequately support the different arrangements claimed. Claim 11, for example, provides "an arrangement for configuring the other components", "an arrangement for upgrading the other components", "an arrangement for maintaining the other components", and "an arrangement for performing an emergency function." Dependent claims 12-18 are then presented to provide a plurality of further arrangements. Presented in this manner, one having ordinary skill in the art would consider each of the arrangements to be distinct as each arrangement is presented separately as "further arrangements".

The specification, however, provides:

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Thus, the present invention provides for a service element being used, which automatically configures components, performs maintenance tasks, and, in particular, updates individual components with new software versions, and, if necessary, automatically executes an emergency function as well, without the user having to intervene. (page 3, lines 29-32)

A method known for this is the checksum method. CRC (cyclical redundancy check) sums are calculated using code segments of the software, and are compared. In this manner, an incorrect code can be identified, and, if the remaining software of the service element has the independent capability, then the software can be repaired, e.g. by loading new software parts, so-called patches. In the case of serious software errors of service element 2, an emergency operation of service element 2 can ensure the correction. A functional test of the bus communication can be carried out using predefined signals, which are transmitted on the bus, and to which a certain response from the connected components is expected, this response being known to service element 2. This ensures that an error message of a subsystem is not lost due to a bus interruption. (page 7, lines 10-19)

Service element 2 questions a service provider in certain time intervals, e.g. once a month, if new software versions are available for the individual components of the distributed system. If this is the case, the service element requests such a new software version, and then loads it using communication means 4. The new software version is tested for errors, using test vectors, and is then configured for the corresponding components. Such an upgrade is then automatically carried out by the visitor alone. (page 7, lines 28-33)

As can be seen above, the first cited section suggests that the updating of individual components with new software versions is a particular manner of carrying out maintenance tasks, thereby not supporting the separate "arrangement for upgrading the other components" and "arrangement for maintaining the other components" as presented in claim 11.

Similarly, the second section cited above suggest that the loading of new software is carried out for correcting an error in the software, thereby not supporting the separate "arrangement for, in the case of an error, correcting

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the software within a framework of maintenance" and "arrangement including a communication element for loading new software for the plurality of components", as presented in claims 13 and 14.

The third section cited above, then indicates that the "arrangement including a communication element for loading new software for the plurality of components" is actually the "arrangement for upgrading the other components", further making it unclear to one having ordinary skill in the art how to make and/or use the invention as claimed.

For at least these reasons, the Examiner asserts that the specification does not sufficiently disclose the "arrangements" as presented in claims 11-19 and therefore, one having ordinary skill in the art would not understand how to make/use the invention as claimed.

Claims 20-23 are rejected under 35 U.S.C. 112, first paragraph, because they incorporate the lack of enablement present in their respective parent claims.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 11, 12, 17, 19, 20, and 23, as may best be understood, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,370,449 to Razavi et al.

With respect to claim 11, Razavi discloses a service element that belongs to a distributed system as a component (column 6, lines 10-18), the distributed system further including other components that are independent of one another (column 3, lines 30-33) and interconnected by a bus (column 4, lines 40-47), comprising an arrangement for configuring the other components (column 7, lines 40-46, column 8, lines 21-29, and column 11, lines 14-20), an arrangement for upgrading the other components (column 13, lines 53-61), an arrangement for maintaining the other components (column 15, lines 6-13), and an arrangement for performing an emergency function (column 1, lines 41-46 and column 7, lines 54-63).

With respect to claim 12, Razavi discloses an arrangement for detecting a new component and for integrating the new component into the distributed system (column 9, lines 45-54).

With respect to claim 17, Razavi discloses an arrangement for operating a display to transfer information about the distributed system to a user of the distributed system (column 11, lines 14-20)

With respect to claim 19, Razavi discloses a distributed system, comprising a bus (column 4, lines 40-47) and components connected by the bus and that are independent of each other (column 3, lines 30-33), the



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components include a service element (column 6, lines 10-18) that includes an arrangement for configuring the other components (column 7, lines 40-46, column 8, lines 21-29, and column 11, lines 14-20), an arrangement for upgrading the other components (column 13, lines 53-61), an arrangement for maintaining the other components (column 15, lines 6-13) and an arrangement for performing an emergency function (column 1, lines 41-46 and column 7, lines 54-63).

With respect to claim 20, Razavi discloses that at least one of the plurality of components includes a communication element (column 4, lines 54-60 and column 5, line 51).

With respect to claim 23, Razavi discloses that the bus includes one of an electrical wiring system, an optical wiring system, and a radio based system (column 3, lines 53-57).

Razavi also discloses an arrangement including a communication element for loading new software for the plurality of components (column 13, lines 61-64).

Razavi further discloses an arrangement for allowing a remote diagnosis of the plurality of components of the distributed system (column 15, lines 3-10).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 13-15 and 18, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al. in view of U.S. Patent No. 6,512,968 to de Bellefeuille et al.

As noted above, the invention of Razavi teaches many of the features of the claimed invention and while the invention of Razavi does teach uploading new software and performing maintenance and updates of existing software of the other components when necessary, Razavi does not explicitly describe the manner in performing maintenance, specifically by performing an error diagnosis to check the software in accordance with a predetermined value.

De Bellefeuille teaches a computerized automotive service system comprising means for maintaining installed software, as part of an installation/uninstallation feature (column 10, lines 11-13), including an arrangement for performing an error diagnosis of software by checking the software in accordance with a predetermined value in order to carry out the corrective maintenance (column 11, lines 12-25).

It would have been obvious to one having ordinary skill in the art to modify the invention of Razavi to explicitly include performing an error diagnosis to check the software in accordance with a predetermined value, as taught by de Bellefeuille, because the combination would have provided a corresponding method for performing the maintenance of Razavi as part of

the software updates that would have improved the operation of Razavi by periodically checking the integrity of the software of the other components to prevent incorrect operation due to software errors (column 11, lines 12-25).

10. Claim 16, as may best be understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al. in view de Bellefeuille and further in view of U.S. Patent No. 6,330,499 to Chou et al.

As noted above, the invention of Razavi and de Bellefeuille teaches many of the features of the claimed invention and while the invention of Razavi and de Bellefeuille does teach a communication element for loading new software for the other components as well as performing an error diagnosis of the software, the combination does not explicitly include an arrangement for, in the case of a serious functional error, contacting a service provider.

Chou teaches a system and method for vehicle diagnostics and health monitoring including an in-vehicle computing system (column 2, lines 55-63) connected to a plurality of elements on a bus (column 3, lines 33-37 and column 6, lines 55-56) and an arrangement for allowing a remote diagnosis of the system (column 3, lines 15-31) and a communications element for, in the case of a serious functional error, contacting a service provider (column 5, lines 16-24 and column 7, lines 4-26). Chou also teaches coupling the processor through a communicating transceiver for communicating over a radio channel to further devices such as a notebook computer (column 3, lines 47-53).

It would have been obvious to one having ordinary skill in the art to modify the invention of Razavi and de Bellefeuille to explicitly include an arrangement for, in the case of a serious functional error, contacting a service provider, as taught by Chou, because, as suggested by Chou, the combination would have aided the user of the system by providing troubleshooting, diagnosis, tracking, and recommendations, as well as prevented serious consequences (column 1, lines 18-30) and provided emergency responses to an emergency condition, such as the condition signaled by the emergency arrangement of Razavi and de Bellefeuille (column 7, lines 22-26).

11. Claim 21, as may best be understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al. in view de Bellefeuille and further in view of U.S. Patent No. 5,465,207 to Boatwright et al.

As noted above, the invention of Razavi and de Bellefeuille teaches many of the features of the claimed invention and while the invention of Razavi and de Bellefeuille does teach a communication element as a transceiver station (i.e. modem) (Razavi; column 11, lines 38-42), the combination does not explicitly indicate that the transceiver station communicates over a radio channel.

Boatwright teaches a vehicle data system including a plurality of system components connected to a bus (Figure 4) wherein one of the components is

a communication element comprising a transceiver station (i.e. modem) communicating over a radio channel (column 6, lines 62-66).

It would have been obvious to one having ordinary skill in the art to modify the invention of Razavi and de Bellefeuille to explicitly indicate that the transceiver station communicate over a radio channel, as taught by Boatwright, because Boatwright suggests that the combination would have provided a communication protocol for the modem of Razavi and de Bellefeuille that is a common manner of communication for modems (column 6, lines 62-66).

12. Claim 22, as may best be understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al. in view de Bellefeuille and further in view of U.S. Patent No. 5,964,813 to Ishii et al.

As noted above, the invention of Razavi and de Bellefeuille teaches many of the features of the claimed invention and while the invention of Razavi and de Bellefeuille does teach performing an error diagnosis of the software any time that it is desired (de Bellefeuille; column 11, lines 20-25), the combination does not explicitly indicate that the error diagnosis is performed at a predefined time interval.

Ishii teaches a vehicle diagnostic data storing system comprising means for performing error diagnosis wherein the diagnosis is performed at a predetermined time interval (column 4, lines 48-61).

It would have been obvious to one having ordinary skill in the art to modify the invention of Razavi and de Bellefeuille to explicitly indicate that the error diagnosis is performed at a predefined time interval, as taught by Ishii, because, as suggested by Ishii, the combination would have improved the system of Razavi and de Bellefeuille by providing automatic and periodic error diagnosis to reduce the burden of the user having to initiate the diagnosis while reducing the chance of system error through diagnostics occurring more often (column 4, lines 48-61).

13. Claims 11, 12, 17, 19, 20, and 23, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,185,491 to Gray et al. in view of U.S. Patent No. 6,370,449 to Razavi et al.

With respect to claim 11, Gray discloses a service element that belongs to a distributed system as a component (column 3, lines 27-32), the distributed system further including other components that are independent of one another and interconnected by a bus (column 3, lines 27-32 and Figure 2), comprising an arrangement for configuring the other components (column 3, lines 36-52 and column 5, line 55 to column 6, line 1), an arrangement for upgrading the other components (column 4, line 65 to column 5, line 8), and an arrangement for performing an emergency function (column 3, lines 52-54).

With respect to claim 12, Gray discloses an arrangement for detecting a new component and for integrating the new component into the distributed

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system (column 6, lines 28-53) as well as an arrangement for operating a display device to represent information about a configuration (column 5, lines 60-64 and Figure 9)

With respect to claim 17, Gray discloses an arrangement for operating a display to transfer information about the distributed system to a user of the distributed system (column 5, lines 32-64).

With respect to claim 19, Gray discloses a distributed system, comprising a bus and components connected by the bus and that are independent of each other (column 3, lines 27-32 and Figure 2), the components include a service element (column 3, lines 27-32) that includes an arrangement for configuring the other components (column 3, lines 36-52 and column 5, line 55 to column 6, line 1), an arrangement for upgrading the other components (column 4, line 65 to column 5, line 8), and an arrangement for performing an emergency function (column 3, lines 52-54).

With respect to claim 20, Gray discloses that at least one of the plurality of components includes a communication element (column 4, line 65 to column 5, line 6 and column 6, lines 34-40 and 62-64).

Gray also discloses an arrangement including a communication element for loading new software interfaces for the plurality of components (column 4, line 65 to column 5, line 6 and column 6, lines 34-40 and 62-64).

As noted above, the invention of Gray teaches many of the features of the claimed invention and while the invention of Gray does teach a service element connected to a plurality of other components over a bus to configure

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and/or upgrade the other components, Gray does not explicitly teach the makeup of the bus or explicitly include an arrangement for maintaining the other components.

Razavi teaches a service element that belongs to a distributed system as a component (column 6, lines 10-18), the distributed system further including other components that are independent of one another (column 3, lines 30-33) and interconnected by an electrical (column 3, lines 53-57) bus (column 4, lines 40-47), comprising an arrangement for maintaining the other components (column 15, lines 6-13).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gray to explicitly teach the makeup of the bus and explicitly include an arrangement for maintaining the other components, as taught by Razavi, because Razavi suggests a conventional bus makeup operable as the bus of Gray (column 3, lines 53-57) as well as means for performing maintenance that would have improved the system of Gray by keeping the software of the other components accurate to prevent system errors caused by faulty software (column 15, lines 6-13).

14. Claims 13, 14 and 18, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray et al. in view of Razavi et al. and further in view of U.S. Patent No. 6,246,935 to Buckley.

As noted above, the invention of Gray and Razavi teaches all of the features of the claimed invention except for including an arrangement for



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performing an error diagnosis of software running on the components, in accordance with a predetermined value, and, in case of an error, correcting the software.

Buckley teaches a vehicle instrument panel computer interface and display including a central control node that communicates to a plurality of other components (column 2, lines 57-62 and column 3, lines 29-51) and performs an error diagnosis of software running on the plurality of components (column 8, lines 46-63). Buckley also teaches determining the occurrence of an error in the software using a cyclic redundancy check with a checksum value (column 7, lines 38-52 and column 9, lines 28-38) (see also FOLDOC Free On-Line Dictionary of Computing, "cyclic redundancy check"), memory check (column 9, lines 38-55) and newly downloaded software check (column 10, lines 27-33), and, upon the occurrence of an error, correcting the software to maintain correct operation (column 9, lines 36-37 and 41-42 and column 10, lines 27-33) through the updating/upgrading the components of the system (column 10, lines 27-43).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gray and Razavi to include an arrangement for performing an error diagnosis of software running on the components, in accordance with a predetermined value, and, in case of an error, correcting the software, as taught by Buckley, because the combination would have provided a further method for determining when new updates are required, such as the updates/upgrades disclosed by Gray and Razavi, and, as suggested by

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Buckley, provided a method for determining whether the software of the devices are updated, complete, and correct thereby insuring correct operation of the distributed system (column 8, lines 46-65, column 9, lines 28-30 and column 10, lines 30-33).

15. Claims 15, 16, and 21, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Razavi and Buckley and further in view of U.S. Patent No. 6,330,499 to Chou et al.

As noted above, the invention of Gray, Razavi, and Buckley teaches many of the features of the claimed invention and while the invention of Gray, Razavi, and Buckley does teach including a communication element for loading new software interfaces for the plurality of components, the combination does not specify that the communication element includes a transceiver station communicating over a radio channel or including an arrangement for allowing a remote diagnosis of the plurality of components of the distributed system and a communications element for, in the case of a serious functional error, contacting a service provider.

Chou teaches a system and method for vehicle diagnostics and health monitoring including an in-vehicle computing system (column 2, lines 55-63) connected to a plurality of elements on a bus (column 3, lines 33-37 and column 6, lines 55-56) and an arrangement for allowing a remote diagnosis of the system (column 3, lines 15-31) and a communications element for, in the case of a serious functional error, contacting a service provider (column 5,

lines 16-24 and column 7, lines 4-26). Chou also teaches coupling the processor through a communicating transceiver for communicating over a radio channel to further devices such as a notebook computer (column 3, lines 47-53).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gray, Razavi, and Buckley to specify that the communication element includes a transceiver station communicating over a radio channel, as taught by Chou, because Chou suggests that RF communication is one of a plurality of common communication means for interfacing to a plurality of devices thereby providing the user with desired method to communicate with the other devices. It also would have been obvious to include an arrangement for allowing a remote diagnosis of the plurality of components of the distributed system and a communications element for, in the case of a serious functional error, contacting a service provider, as taught by Chou, because the combination would have provided a method for adhering to space constraints of the system while still providing detailed monitoring and diagnostic functions to insure correct system operation and, as suggested by Chou, aided the user of the system by providing trouble-shooting, diagnosis, tracking, and recommendations, as well as prevented serious consequences (column 1, lines 18-30) and provided emergency responses to an emergency condition, such as the condition indicated by the emergency arrangement of Gray (column 7, lines 22-26).

16. Claim 22, as may best be understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Razavi and Buckley and further in view of U.S. Patent No. 4,866,713 to Worger et al.

As noted above, the invention of Gray, Razavi, and Buckley teaches many of the features of the claimed invention including determining the occurrence of an error in the software using a cyclic redundancy check with a checksum value (Buckley; column 7, lines 38-52 and column 9, lines 28-38), however, the combination does not specify that this error diagnosis is performed at a predefined time interval.

Worger teaches an operational function checking method and device for microprocessors comprising performing a cyclic redundancy check at predefined time intervals (i.e. periodically) (column 4, lines 24-29).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gray, Razavi, and Buckley to specify that the error diagnosis is performed at a predefined time interval, as taught by Worger, because the combination would have provided a method for determining proper operation periodically over operation of the device to insure accurate operation is being performed and, as suggested by Worger, the combination would have complied with operation of the system in carrying out the testing method (column 4, lines 24-29).

### ***Response to Arguments***

17. Applicant's arguments with respect to claims 11-23 have been considered

but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

U.S. Patent No. 6,526,460 to Dauner et al. teaches a vehicle communications system.

U.S. Patent No. 6,434,455 to Snow et al. teaches a vehicle component diagnostic and update system.

U.S. Patent No. 6,434,459 to Wong et al. teaches an automobile information system.

U.S. Patent No. 6,185,484 to Rhinehart teaches a method of operating a motor vehicle management computer system.

U.S. Patent No. 6,654,669 to Eisenmann et al. teaches a processor unit for a data-processing-aided electronic control system in a motor vehicle.

U.S. Patent No. 6,263,269 to Dannenberg teaches configuration programming of input/output connections for network modules in a multiplexed vehicle communication system.

U.S. Patent No. 6,401,049 to Ehmer teaches a process for inspecting the components of a system in a motor vehicle.

FOLDOC Free On-Line Dictionary of Computing, "cyclic redundancy check", teaches the definition of a "cyclic redundancy check" as a method wherein a number is "derived from, and stored or transmitted with, a block of

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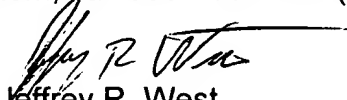
data in order to detect corruption. By recalculating the CRC and comparing it to the value originally transmitted.”

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (571)272-2226. The examiner can normally be reached on Monday through Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeffrey R. West  
Examiner – AU 2857

December 11, 2006